

AMENDMENT

Please replace claims 1, 20 and 25 with the following:

1. (Amended) A method of preserving a biopharmaceutical product comprising:

placing a medium comprising a biopharmaceutical product within a vessel having an interior cavity defined by an interior wall of said vessel, said vessel having a central axis;

flowing a cooling fluid through a removably mounted heat exchange structure within said interior cavity of said vessel, said structure comprising an elongated pipe having a central axis, wherein at least a portion of the central axis of said elongated pipe is positioned coaxially with the central axis of the vessel within said cavity, said structure having one or more heat transfer members thermally coupled thereto; and

actively cooling said interior wall using a fluid.

20. (Amended) A method for facilitating the processing of a biopharmaceutical product comprising:

providing a vessel adapted to receive a medium comprising a biopharmaceutical product therein, said vessel having an interior cavity defined by at least an interior wall of said vessel, said vessel having a central axis;

providing a passage for actively cooling said interior wall using a cooling fluid;

and

providing a heat exchange structure within said cavity, said heat exchange structure

including an elongated pipe having a central axis, wherein at least a portion of the central axis of said elongated pipe is positioned coaxially with the central axis of the vessel within said cavity, said elongated pipe having one or more heat transfer members thermally coupled thereto, said elongated pipe defining a passage for actively cooling the one or more heat exchange members using a cooling fluid.

25. (Amended) A method of processing a biopharmaceutical product comprising:

B3 providing a vessel adapted to receive a medium comprising a biopharmaceutical product therein, said vessel having an interior cavity defined by an interior wall of said vessel and a heat exchange structure within said cavity, said heat exchange structure having an elongated pipe having a central axis, wherein at least a portion of the central axis of said elongated pipe is positioned coaxially with the central axis of the vessel within said cavity, said elongated pipe having one or more heat transfer members thermally coupled thereto;

placing a medium comprising a biopharmaceutical product within said vessel;

actively cooling said interior wall using a cooling fluid;

actively cooling said heat exchange structure by flowing a fluid through the elongated pipe; and

freezing the medium within said vessel to preserve said biopharmaceutical product.
